

### **REMARKS**

[0001] Applicant respectfully requests entry of the following remarks and reconsideration of the subject application.

[0002] The status of the claims is as follows:

- Claims 1-23 are currently pending (after this response)
- Claim 21 is rejected herein
- Claims 1-20, 22 and 23 are withdrawn herein
- Claim 21 is amended herein
- Claims 24 to 34 are added herein

[0003] Support for the amendment to claim 21 may be found for example at page 9 lines 5 to 7 of the original specification.

### **Cited Documents**

[0004] The following documents have been applied to reject one or more claims of the Application:

- **Rozenblit:** Rozenblit et al., U.S. Patent No. 6,658,237;
- **Shinohara:** Shinohara et al., U.S. Patent No. 6,160,838.

**Claim 21 is Non-Obvious Over Rozenblit et al. and Shinohara et al.**

[0005] Claim 21 stands rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Rozenblit et al. (U.S. Patent No.: 6,658,237) in view of Shinohara et al. (U.S. Patent No.: 6,160,838). Applicant respectfully traverses the rejection.

**Independent Claim 21**

[0006] Claim 21 has been amended to include all the features of based claim 20 which has been canceled. Applicant submits that the cited references (alone or in combination) do not teach or suggest amended claim 1:

A system for transmitting and receiving data comprising:

a low noise amplifier receiving a modulated incoming carrier signal having a carrier signal frequency;

a local oscillator generating a signal having a subharmonic frequency of the carrier signal;

a first mixer coupled to the low noise amplifier and the local oscillator, the first mixer receiving the modulated incoming carrier signal and generating an in-phase incoming data signal;

a second mixer coupled to the low noise amplifier and the local oscillator, the second mixer receiving the modulated incoming carrier signal and generating a quadrature phase incoming data signal, wherein the first and second mixers multiply the signal of the local oscillator by a factor equal to the inverse of the subharmonic frequency prior to mixing the signal of the local oscillator with the carrier signal;

a modulator coupled to the local oscillator, the modulator receiving an outgoing data signal and modulating the outgoing data signal onto the local oscillator signal to generate an outgoing modulated carrier signal;

a transmit amplifier coupled to the modulator, the transmit amplifier amplifying the outgoing modulated carrier signal to a transmission power level; and

a general purpose computing platform coupled to the first mixer, the second mixer, and the modulator, the general purpose computing platform decoding an incoming data signal from the in-phase incoming data signal and the quadrature phase incoming data signal, and generating the outgoing data signal.

**[0007]** Claim 21 has been amended to include the feature “wherein the first and second mixers multiply the signal of the local oscillator by a factor equal to the inverse of the subharmonic frequency prior to mixing the signal of the local oscillator with the carrier signal” which is not taught or suggested by the cited references.

**[0008]** Consequently, Rozenblit in view of Shinohara does not teach or suggest all of the elements and features of claim 21. Accordingly, Applicant respectfully requests that the rejection of claim 21 be withdrawn.

**New Dependent Claims 24-25**

**[0009]** Claims 24 and 25 ultimately depend from independent claim 21. As discussed above, claim 21 is patentable over the cited documents. Therefore, claims 24 and 25 are also patentable over the cited documents of record for at least their dependency

from a patentable base claim. These claims may also be patentable for the additional features that each recites.

**New Independent Claim 26**

**[00010]** New Claim 26 includes the feature “multiplying the subharmonic local oscillator signal by a factor equal to the inverse of a frequency of the subharmonic local oscillator signal with the carrier signal prior to mixing the signal of the local oscillator with the carrier signal.” As discussed above in support of claim 21, such a feature is not taught or suggested by the references. Consequently, Rozenblit in view of Shinohara does not teach or suggest all of the elements and features of claim 21.

**New Dependent Claims 27-34**

**[00011]** Claims 27-34 ultimately depend from independent claim 26. As discussed above, claim 26 is patentable over the cited documents. Therefore, claims 27-34 are also patentable over the cited documents of record for at least their dependency from a patentable base claim. These claims may also be patentable for the additional features that each recites.

## **Conclusion**

**[00012]** Applicant submits that all pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the Examiner is urged to contact the undersigned representative for the Applicant before issuing a subsequent Action.

Respectfully Submitted,

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